This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-14 (cancelled)

Claim 15 (currently amended): ~~The method according to claim 13~~ A method for processing a food product comprising transporting said food product through a plurality of stations including a pasteurization station, pasteurizing the surface of said food product at said pasteurization station by applying a pasteurizing medium to said food product at said pasteurization station and convectively transferring heat from said pasteurizing medium to the surface of said food product at a sufficiently high heat transfer rate such that the surface heat transfer coefficient becomes sufficiently higher than the food product conductance coefficient that the surface temperature is substantially instantaneously elevated above temperatures which are instantly lethal to microbes which may be present, and comprising applying said pasteurizing medium to said surface of said food product with directional jets, and directing said pasteurizing medium at high enough velocity to physically displace said food product and apply said pasteurizing medium to the entire outer surface of said food product.

Claims 16-20 (cancelled)

Claim 21 (currently amended): ~~The method according to claim 17~~ A method for processing a food product comprising transporting said food product through a plurality of stations including a loading station, a pasteurization station, and a closing station, said loading station loading said food product in a package, said pasteurization station pasteurizing the surface of said food product after said loading station, said closing station closing said package with said food product therein after said pasteurization station, and comprising pasteurizing said food product at said pasteurization station with a pasteurizing medium, and directing said pasteurizing

medium at said food product at high velocity to physically displace said food product from said package and apply said pasteurizing medium to the entire outer surface of said food product.

Claim 22 (currently amended): ~~The method according to claim 17~~ A method for processing a food product comprising transporting said food product through a plurality of stations including a loading station, a pasteurization station, and a closing station, said loading station loading said food product in a package, said pasteurization station pasteurizing the surface of said food product after said loading station, said closing station closing said package with said food product therein after said pasteurization station, wherein said pasteurization station includes a chamber having first and second distal ends, and comprising flowing a pasteurizing medium across said food product by introducing said pasteurizing medium at said first distal end and venting said pasteurizing medium at said second distal end.

Claim 23 (original): The method according to claim 22 comprising cyclically and alternately reversing the supply and venting of said pasteurizing medium at said first and second distal ends to provide alternating direction flow of pasteurizing medium across said food product and provide a pulsing effect of said flow.

Claim 24 (original): The method according to claim 22 wherein said pasteurizing medium is steam which condenses on said food product to condensate, and comprising venting both steam and condensate from said chamber.

Claim 25 (currently amended): ~~The method according to claim 17~~ A method for processing a food product comprising transporting said food product through a plurality of stations including a loading station, a pasteurization station, and a closing station, said loading station loading said food product in a package, said pasteurization station pasteurizing the surface of said food product after said loading station, said closing station closing said package with said food product therein after said pasteurization station, and comprising providing said pasteurization station with a chamber having first, second and third ports, and comprising providing a first

flush mode introducing pasteurizing medium at said first port and venting said pasteurizing medium at at least one of said second and third ports, providing a second flush mode introducing pasteurizing medium at said second port and venting said pasteurizing medium at at least one of said first and third ports, and providing a third flush mode introducing pasteurizing medium at both of said first and second ports and venting said pasteurizing medium at said third port.

Claim 26 (original): The method according to claim 25 comprising providing said third port between said first and second ports, and

during said first flush mode, flowing said pasteurizing medium in a first direction across said food product,

during said second flush mode, flowing said pasteurizing medium across said food product in a second direction opposite to said first direction, and

during said third flush mode, flowing said pasteurizing medium in each of said first and second directions to said third port.

Claim 27 (original): The method of according to claim 25 comprising providing said third port between said first and second ports, and

during said first flush mode, flowing said pasteurizing medium in a first direction across said food product,

during said second flush mode, flowing said pasteurizing medium across said food product in a second direction opposite to said first direction, and

during said third flush mode, flowing said pasteurizing medium in each of said first and second directions from said third port.

Claim 28 (currently amended): ~~The method according to claim 17~~ A method for processing a food product comprising transporting said food product through a plurality of stations including a loading station, a pasteurization station, and a closing station, said loading station loading said food product in a package, said pasteurization station pasteurizing the surface of said food

product after said loading station, said closing station closing said package with said food product therein after said pasteurization station, and comprising providing said pasteurization station with a chamber having first, second and third ports, said third port being between said first and second ports, and comprising providing a flush mode introducing pasteurizing medium at said third port and venting said pasteurizing medium at at least one of said first and second ports.

Claim 29 (currently amended): ~~The method according to claim 17~~ A method for processing a food product comprising transporting said food product through a plurality of stations including a loading station, a pasteurization station, and a closing station, said loading station loading said food product in a package, said pasteurization station pasteurizing the surface of said food product after said loading station, said closing station closing said package with said food product therein after said pasteurization station, wherein said food product is one or more hot dogs each extending longitudinally between first and second wrinkled ends, and comprising introducing pasteurizing medium at said pasteurization station to each of said first and second wrinkled ends, and flowing the pasteurizing medium longitudinally along said hot dog.

Claim 30 (original): The method according to claim 29 comprising initially introducing said pasteurizing medium to each of said first and second wrinkled ends and then flowing said pasteurizing medium longitudinally along said hot dog.

Claim 31 (original): The method according to claim 29 comprising initially flowing said pasteurizing medium longitudinally along said hot dog and then to said first and second wrinkled ends.

Claim 32 (original): The method according to claim 29 comprising introducing said pasteurizing medium alternately at said first and second wrinkled ends.

Claim 33 (original): The method according to claim 29 comprising introducing said pasteurizing medium simultaneously at said first and second wrinkled ends.

Claim 34 (canceled)

Claim 35 (currently amended): ~~The method according to claim 34~~A method for processing a food product comprising transporting said food product through a plurality of stations including a loading station, a pasteurization station, and a closing station, said loading station loading said food product in a package, said pasteurization station pasteurizing the surface of said food product after said loading station, said closing station closing said package with said food product therein after said pasteurization station, wherein said pasteurization station includes a pressure vessel chamber, and comprising introducing pressurized pasteurizing medium into said chamber to pasteurize said food product, and comprising processing said food product at said pasteurization station by closing said chamber, introducing pressurized pasteurizing medium into said chamber to pasteurize said food product, and venting said pasteurizing medium from said chamber and depressurizing and opening said chamber.

Claim 36 (original): The method according to claim 35 comprising opening said chamber prior to complete depressurization thereof such that said chamber is opened while some residual pressure still remains in said chamber, thereby decreasing cycle time to increase throughput rate.

Claim 37 (currently amended): ~~The method according to claim 17~~ A method for processing a food product comprising transporting said food product through a plurality of stations including a loading station, a pasteurization station, and a closing station, said loading station loading said food product in a package, said pasteurization station pasteurizing the surface of said food product after said loading station, said closing station closing said package with said food product therein after said pasteurization station, and comprising pasteurizing said food product with steam which condenses on said food product to condensate, and comprising immediately

after pasteurization with said steam, removing excess moisture from said food product with high velocity sterile air prior to closing of said package at said closing station.

Claims 38-46 (canceled)

Claim 47 (currently amended): ~~The method according to claim 45~~ A method for processing a food product comprising transporting said food product through a plurality of stations including a pasteurization station, pasteurizing the surface of said food product at said pasteurization station by applying a pasteurizing medium to said food product at said pasteurization station and convectively transferring heat from said pasteurizing medium to the surface of said food product at a sufficiently high heat transfer rate such that the surface heat transfer coefficient becomes sufficiently higher than the food product conductance coefficient that the surface temperature is substantially instantaneously elevated above temperatures which are instantly lethal to microbes which may be present, wherein said pasteurizing medium is steam, and comprising pasteurizing the surface of said food product by condensing steam on said surface, and comprising retarding the onset of film condensation by removing condensate film from said surface.

Claim 48 (previously presented): The method according to claim 47 comprising condensing steam on said surface in dropwise condensation, and removing said condensate film as soon as it forms on said surface, such that condensation is substantially only dropwise condensation and not film condensation.

Claim 49 (currently amended): ~~The method according to claim 45~~A method for processing a food product comprising transporting said food product through a plurality of stations including a pasteurization station, pasteurizing the surface of said food product at said pasteurization station by applying a pasteurizing medium to said food product at said pasteurization station and convectively transferring heat from said pasteurizing medium to the surface of said food product at a sufficiently high heat transfer rate such that the surface heat transfer coefficient becomes sufficiently higher than the food product conductance coefficient that the surface temperature is

substantially instantaneously elevated above temperatures which are instantly lethal to microbes which may be present, wherein said pasteurizing medium is steam, and comprising pasteurizing the surface of said food product by condensing steam on said surface, and comprising removing condensate film from said surface with directional jets.

Claim 50 (previously presented): The method according to claim 49 comprising applying high velocity steam from said jets physically displacing said food product and applying steam to the entire outer surface of said food product.

Claim 51 (previously presented): The method according to claim 50 wherein said stations include a loading station loading said food product in a package prior to said pasteurization station, and comprising physically displacing and lifting said food product from said package at said pasteurization station with high velocity steam from said jets to enable application of steam to the entire outer surface of said food product.

Claim 52 (previously presented): The method according to claim 50 wherein said stations include a loading station loading said food product in a package prior to said pasteurizing station, and comprising inducing movement of said food product in said chamber at said pasteurization station with high velocity steam from said jets to enable application of steam to the entire outer surface of said food product.

Claim 53 (canceled)

Claim 54 (currently amended): ~~The method according to claim 53~~ A method for processing a food product comprising transporting said food product through a plurality of stations including a pasteurization station, pasteurizing the surface of said food product at said pasteurization station by applying a pasteurizing medium to said food product at said pasteurization station and convectively transferring heat from said pasteurizing medium to the surface of said food product at a sufficiently high heat transfer rate such that the surface heat transfer coefficient becomes

sufficiently higher than the food product conductance coefficient that the surface temperature is substantially instantaneously elevated above temperatures which are instantly lethal to microbes which may be present, wherein said pasteurizing medium is steam, and comprising pasteurizing the surface of said food product by condensing steam on said surface, wherein said stations include a loading station loading said food product in a package prior to said pasteurization station, and comprising also applying said steam to said package at said pasteurization station, wherein said food product comprises longitudinally extending tubular members, and wherein said package is supported on a surface having ridges extending transversely to said longitudinally extending tubular members to minimize surface area contact therewith and maximize exposure of said longitudinally extending tubular members to said steam.

Claims 55-56 (cancelled)

Claim 57 (currently amended): ~~The method according to claim 13~~A method for processing a food product comprising transporting said food product through a plurality of stations including a pasteurization station, pasteurizing the surface of said food product at said pasteurization station by applying a pasteurizing medium to said food product at said pasteurization station and convectively transferring heat from said pasteurizing medium to the surface of said food product at a sufficiently high heat transfer rate such that the surface heat transfer coefficient becomes sufficiently higher than the food product conductance coefficient that the surface temperature is substantially instantaneously elevated above temperatures which are instantly lethal to microbes which may be present, wherein said food product is a non-encased food product, and comprising surface pasteurizing said non-encased food product in a pressurized chamber by introducing said pasteurizing medium into said chamber and venting said pasteurizing medium from said chamber at a slower outflow rate than the inflow rate of said pasteurizing medium into said chamber such that pressure in said chamber increases, to increase the temperature of said pasteurizing medium to an effective temperature for killing bacteria.

Claim 58 (canceled)

Claim 59 (previously presented): The method according to claim 57 comprising providing first and second ports into said chamber, providing a first cycle and inflowing said pasteurizing medium into said chamber through said first port and venting said pasteurizing medium from said chamber through said second port at a slower outflow rate than the inflow rate through said first port in said first cycle, providing a second cycle and inflowing said pasteurizing medium into said chamber through said second port and venting said pasteurizing medium from said chamber through said first port at a slower outflow rate than the inflow rate of said pasteurizing medium into said chamber through said second port in said second cycle, such that pressure builds in said chamber in each of said first and said second cycles.

Claim 60 (previously presented): The method according to claim 57 comprising providing first and second ports into said chamber, and providing a pasteurization cycle continuously flowing said pasteurizing medium into said chamber through said first port and continuously venting said pasteurizing medium from said chamber through said second port to provide continuous flow of said pasteurizing medium across said food product during said pasteurization cycle without sealing said chamber against outflow or otherwise blocking venting of said pasteurizing medium from said chamber during said pasteurization cycle.

Claim 61 (previously presented): The method according to claim 60 wherein said pasteurizing medium is steam, and said continuous flow strips away steam film condensate from said food product, enhancing heat transfer.

Claim 62 (previously presented): The method according to claim 57 comprising supplying said pasteurizing medium to said chamber during a pasteurization cycle, and immediately after said pasteurization cycle, providing a vacuum cooling step removing said pasteurizing medium from said chamber and vacuum cooling said food product by evaporative cooling, namely by evaporation of condensate.

Claim 63 (previously presented): The method according to claim 57 comprising surface pasteurizing said food product with dual chamber heat treatment comprising providing a first said pressurized chamber and pasteurizing said food product with condensing steam therein, and transferring said food product to a second pressurized chamber and pasteurizing said food product with super heated steam in said pressurized second chamber.